

Appln. No.: 10/019,070
August 22, 2003
Reply to Office Action of April 8, 2003

Remarks/Arguments:

Amendments

Claims 2, 4, 5, 25, 26, 28, 30, 32-38, 47, and 49 have been cancelled. The claims have been amended to United States spelling of the words such as "color" and "fiber." The dependency of the claims has been amended where necessary.

The limitations of claims 2 and 5 have been incorporated into claim 1. Claims 11, 12, and 13 have been amended to recite that the material is a woven felt that comprises warp and weft yarns. Support for this amendment is found in original claim 1. Claim 16 has been amended to recite dodecylbenzenesulphonic acid, as requested by the Examiner. Claim 17 has been amended to recite that the material is dyed, as requested by the Examiner. Claim 19 has been amended to recite "a pH" instead of "the pH."

The limitation of claim 30 has been incorporated into claim 27. Support for the chroma value of 110 or more limitation is found in original claim 31. Support for the other amendments to claim 27 is found in original claims 1, 2, and 5. Support for the amendment to claims 46 and 48 is found on page 2, lines 17-18.

It is submitted that no new matter is introduced by these amendments.

Rejections under 35 USC 112

Claims 1-48 were rejected for failing to point out and distinctly claim the subject matter that applicant regards as the invention. With respect to the specific rejections:

Claim 1 has been amended to remove "said color." Claim 2 has been cancelled. Claim 3 now properly depends on claim 1 because claim 1 has been amended to recite a yellow dye. Claim 16 has been amended to add the word "acid." Claim 17 has been amended to recite "dyed," rather than "treated." Claim 19 has been amend to recite "a pH." It is submitted that these rejections have been overcome.

Claim 22 has rejected because "there [was] no antecedent basis for 'quasi-simultaneously.'" This term appears in the specification on page 8, line 18, and, thus, has antecedent basis in the specification. Applicants assume that the Office position is that, the person of ordinary skill in the art, reading the claim in light of the specification, would not

understand its meaning. This rejection is respectfully traversed.

Page 8, lines 17-19 read as follows: "It is further preferred that bleaching agent be added simultaneously or quasi-simultaneously with the partitioning agent." The person of ordinary skill in the art, reading the claim in light of the specification, would have no trouble understanding that "quasi-simultaneously" means "nearly simultaneously." This rejection should be withdrawn.

First Rejection under 35 USC 103

Claims 1-45 were rejected as being unpatentable over Reincke and/or Schmidt, U.S. Patent 3,551,087 ("Schmidt") in view of Turner, U.S. Patent 5,771,495 ("Turner"), Carroll, U.S. Patent 3,847,543, ("Carroll"), and Horlander, U.S. Patent 4,466,900 ("Horlander"). The Office appears to be referring to the English translation of Reincke, rather than to the German original.

Method Claims 1-26

Reincke teaches away from the invention

Claims 2, 4, 5, 25, and 26 have been cancelled. Claims 1, 3, and 6-24 remain. Claims 1, 3, and 6-23 are drawn to a method for dyeing a fabric material for use as a tennis ball cover with a fluorescent yellow dye. Claim 24 is a product by process claim drawn to a tennis ball whose fabric is produced by the method of claim 1. The inventors have found that by bleaching the wool fabric prior to dyeing it, or simultaneously therewith, the reflectance value and the chroma values of the resulting fabric can both be significantly increased. As shown in Table 1, page 21, the fabric produced by this method is superior in reflectance and chroma to the fabric used in commercially available tennis balls.

Schmidt discloses simultaneous dyeing and bleaching of proteinaceous fibrous material. Schmidt, Title. Reincke discloses that mild bleaching agents can be added to dyeing baths to suppress "the naturally present yellowness of wool." Translation, page 10, lines 13-17.

Suppressing "the naturally present yellowness of wool" is necessary and

important when a white fabric is desired or the fabric is to be dyed a color other than yellow, when the yellowness of the wool would adversely affect the color of the dyed fabric. However, the person of ordinary skill in the art, having the advantage of the teachings of Reincke and desiring to produce a yellow fabric, would not be motivated to bleach the wool before dyeing it, as taught by Schmidt or by Reincke, because Reincke teaches that wool is naturally yellow. Thus, Reincke teaches away from applicants' invention. A reference that teaches away from an invention cannot make it obvious.

Carroll teaches reducing shrinkage of textile materials. Title. Turner teaches a snowboarding sock. Title. Horlander teaches a process for the preparation of storage stable fluorescent brightener preparations. Abstract. The Office has not alleged that any of these references teach anything about the use of bleaching agents in the dyeing of wool.

The Office has not made the *prima facie* case. Reincke teaches that wool is naturally yellow, thus teaching away bleaching the wool, as taught by Reincke and by Schmidt, before or simultaneous with dyeing it yellow. Nothing in the secondary references, Carroll, Turner, and/or Horlander overcomes the negative teachings of Reincke. Therefore, the Office has not made the *prima facie* case, and the rejection should be withdrawn.

Colored Fabric Material Claims 27-31

Claims 28, and 30 have been cancelled. Claims 27, 29, and 31 remain. Each of these claims recites a colored fabric material, which is dyed a fluorescent yellow, with a defined croma value, a defined lightness value, and a defined reflectance value.

The Office position is that "the combination of prior art references above teaches how to form very bright, very white wool blend products. The burden is on the applicant to prove that his product is superior to a wool blend product produced by the processes of Reincke and/or Schmidt." Paper, 6, page 5, lines 1-4.

In support of this position the Office has cited alleged teachings of Reincke and Schmidt. These alleged teachings are discussed below.

1. "Both Reincke and Schmidt claim superior brightness, though no

measurements were performed." Paper 6, page 4, lines 8-9. Superior to what? Without a comparison, based on quantitative measurements, such statements are meaningless puffery. The Office is also respectfully requested to point out specifically where in each of these references "superior brightness" is claimed. See, 37 CFR 1.104(c)(2). Note that, as discussed below, Schmidt claims that the advantage of his process is ease of operation, not "superior brightness."

2. "Reincke states that the combination of brighteners with reductive bleaching agents enhance the brightening effect." Paper 6, page 4, lines 9-10. This disclosure is not relevant to the yellow fabric recited by applicants' amended claims. Reincke has reference to white fabric, not fabric dyed yellow.

3. "Reincke teaches that wool may be bleached to 'full whiteness.'" Paper 6, page 4, lines 10-11. Reincke actually teaches that bleaching to "full whiteness" normally requires two bleaching steps. See, Translation, page 5, line 10-15. Applicants' process recites only a single bleach step. Further, as amended, applicants' claims recite a fabric that is dyed yellow, not a white fabric.

4. "Schmidt states that his bleaching and dyeing process with acid dyes produces dyeings that are "just as beautiful and bright as when the goods have been bleached prior to dyeing." Paper 6, lines 12-14 (emphasis added). Schmidt admits that the fabric produced by his process is equivalent to, but no better, than that produced by the prior art. The advantage of Schmidt's process was not that it produced a superior product than the prior art. The advantage was that it was a simpler process than the prior art. See Schmidt, column 1, lines 49-55. ✓

Applicants submit that there is no teaching in either Reincke or Schmidt that suggests that a fabric having the properties of the claimed fabric was produced.

Further, applicants' amended claims recite a fabric that is dyed yellow. Schmidt's examples, which he admits are no better than the prior art, are blue (Example 1 and most other examples), violet (Example 5), and "grey" (Examples 7 and 14). As noted above, Reincke teaches away from using his process to produce a yellow fabric. Thus, there is no evidence that "the examiner has found a similar product." The rejection of claim 27, and the claims dependent thereon should be withdrawn.

Further, even if "the examiner has found a similar product," as shown in Table 1, page 21, the claimed fabric is superior in reflectance and chroma to the closest prior art, fabric used in commercially available tennis balls. Note that the specification discloses that the "High Visibility felt manufactured by Milliken," the third entry in Table 1, is the closest prior art. Specification, page, 21, lines 3-5.

The Office makes the following points with respect to the data in Table 1. Paper 6, page 5, lines

- 1) The variation is not significant.

No evidence has been cited to show that the variation is "not significant." The Examiner is respectfully requested to place on the record evidence that would support such a conclusion.

- 2) Applicant has not stated how his comparison was done.

Attention is called to page 19, lines 21-24, and page 20, lines 17-21, of the specification.

- 3) The Office alleges, without support, that use of only one ball from each category is "not a proper scientific comparison and the values are of no significance."

No reference has been cited in support of this proposition. The Examiner is respectfully requested to place on the record evidence that supports this proposition.

- 4) Only balls comprising 60:40 wool/nylon have been compared and the results are not representative.

No reference has been cited in support of this proposition. The Examiner is respectfully requested to place on the record evidence that supports this proposition.

Applicants submit that the data in Table 1 is a comparison with the closest prior art, and thus demonstrates the novel and unexpected properties of applicants' fabric. for this additional reason, the rejection of claims of claim 27, and the claims dependent thereon should be withdrawn.

Appln. No.: 10/019,070
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Claims 32-38

Claims 32-38 have been cancelled.

Claims 39-45

Claims 39-45 now depend, directly or indirectly, on claim 27.

Second Rejection under 35 USC 103

Claims 27, 28, 29, 47, and 48 were rejected as unpatentable over the tennis balls disclosed on page 21 of the specification. Claims 28 and 47 have been cancelled. The remaining claims are claims 27, 29, and 48. Claims 39-45 now depend, directly or indirectly, on claim 27.

Claim 27 has been amended and now recites the limitations of cancelled claim 28 and 30. As amended, claim 27 recites that the ball has the following characteristics:

- i) a chroma value of 110 or more;
- ii) a lightness value of 95 or more; and
- iii) a reflectance value of 125 or more.

Claim 29, which depends on claim 27, recites that the lightness value is 95 or more.

Claim 30 was not rejected as unpatentable over the tennis balls disclosed on page 21 of the specification. Claims 27 and 29 now recite the limitations of claim 30. It is submitted that the rejection of claims 27 and 29 as unpatentable over the tennis balls disclosed on page 21 of the specification should be withdrawn.

Claims 39-45 now depend, directly or indirectly, on claim 27. These claims are allowable over the tennis balls disclosed on page 21 of the specification.

Claim 46 recites a tennis ball comprising the fabric of claim 27. This claim is allowable over the tennis balls disclosed on page 21 of the specification.

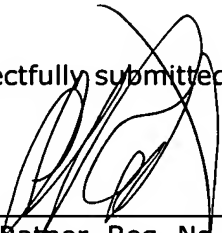
Conclusion

It is respectfully submitted that the claims are in condition for immediate allowance and a notice to this effect is earnestly solicited. The Examiner is invited to phone applicants'

Appln. No.: 10/019,070
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attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application.

Respectfully submitted,



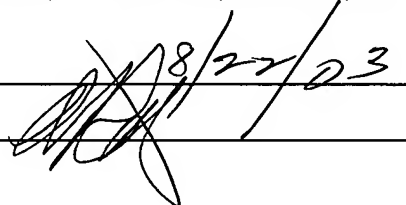
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